



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-0937; Project Identifier MCAI-2022-00134-R; Amendment 39-22507; AD 2023-14-07]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Airbus Helicopters Model EC155B1 helicopters. This AD was prompted by reports of failure of the main gearbox (MGB) oil cooling fan hub (fan hub). This AD requires, for helicopters with an affected part (fan hub) installed, using an endoscope, repetitively inspecting the fan hub, including the area around the fan hub attachment screws, for a crack. Depending on the inspection results, this AD requires performing additional inspections and replacing an affected fan hub. This AD also allows an affected fan hub to be installed on a helicopter if certain actions are accomplished, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0937; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the EASA AD, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For EASA material identified in this final rule, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; internet easa.europa.eu. You may find the EASA material on the EASA website at ad.easa.europa.eu.

- You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0937.

Other Related Service Information: For Airbus Helicopters service information identified in this AD, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at airbus.com/en/products-services/helicopters/hcare-services/airbusworld. You may also view this service information at the FAA contact information under *Material Incorporated by Reference* above.

FOR FURTHER INFORMATION CONTACT: Kevin Kung, Aviation Safety Engineer, FAA, 1600 Stewart Ave, Suite 410, Westbury, NY 11590; telephone (781) 238-7244; email: 9-AVS-AIR-BACO-COS@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued a series of EASA ADs with the most recent being EASA AD 2022-0006R2, dated January 31, 2022 (EASA AD 2022-0006R2), to correct an unsafe condition for Airbus Helicopters Model EC 155 B1 helicopters.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus Helicopters Model EC155B1 helicopters. The NPRM published in the *Federal Register* on May 12, 2023 (88 FR 30682). The NPRM was prompted by reports of failure of the fan hub.

The NPRM proposed to require, for helicopters with an affected fan hub installed, using an endoscope, repetitively inspecting the fan hub, including the area around the fan hub attachment screws, for a crack. Depending on the inspection results, the NPRM proposed to require performing additional inspections and replacing an affected fan hub. The NPRM also proposed to also allow an affected fan hub to be installed on a helicopter if certain actions proposed in the NPRM have been accomplished as specified in EASA AD 2022-0006R2.

You may examine EASA AD 2022-0006R2 in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-0937.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union,

EASA has notified the FAA of the unsafe condition described in its AD. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters. Except for minor editorial changes, this AD is adopted as proposed in the NPRM.

Related Service Information under 1 CFR Part 51

EASA AD 2022-0006R2 requires, for helicopters with a certain part-numbered fan hub installed, repetitively inspecting the fan hub, including the area around the fan hub attachment screws, for a crack. EASA AD 2022-0006R2 also requires, if there is a crack, additional inspections, replacing an affected fan hub, and sending certain information to Airbus Helicopters.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Other Related Service Information

The FAA also reviewed Airbus Helicopters Alert Service Bulletin No. EC155-05A039, Revision 0, dated January 6, 2022. This service information specifies procedures, using an endoscope, to inspect the fan hub and the fan hub attachment screws for a crack. This service information also specifies procedures to interpret the results of the endoscope inspection; and depending on the results, performing close monitoring, replacing an affected fan hub, and sending certain information to Airbus Helicopters.

Differences Between this AD and the EASA AD

EASA AD 2022-0006R2 requires replacing each affected fan hub with a serviceable fan hub if any crack is detected, whereas this AD requires removing each affected fan hub from service and replacing it with a serviceable fan hub if any crack is detected.

Service information referenced in EASA AD 2022-0006R2 specifies sending certain information, including pictures, to the manufacturer, whereas this AD does not.

Interim Action

The FAA considers that this AD is an interim action. If final action is later identified, the FAA might consider further rulemaking then.

Costs of Compliance

The FAA estimates that this AD affects 10 helicopters of U.S. registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Inspecting the fan hub, including each fan hub attachment screw, and interpreting the results takes about 1 work-hour for an estimated cost of \$85 per inspection and \$850 for the U.S. fleet per inspection cycle.

Replacing an affected fan hub with a serviceable fan hub takes about 8 work-hours and parts cost about \$7,273 for an estimated cost of \$7,953 per fan hub replacement.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2023-14-07 Airbus Helicopters: Amendment 39-22507; Docket No. FAA-2023-0937; Project Identifier MCAI-2022-00134-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Airbus Helicopters Model EC155B1 helicopters, certificated in any category.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6320, Main rotor gearbox.

(e) Unsafe Condition

This AD was prompted by reports of failure of the main gearbox (MGB) oil cooling fan hub (fan hub). The FAA is issuing this AD to inspect for cracks on and around the fan hub. The unsafe condition, if not addressed, could result in an undetected loss of lubrication of the MGB or engine and reduced control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2022-0006R2, dated January 31, 2022 (EASA AD 2022-0006R2).

(h) Exceptions to EASA AD 2022-0006R2

(1) Where EASA AD 2022-0006R2 requires compliance in terms of flight hours, this AD requires using hours time-in-service (TIS).

(2) Where EASA AD 2022-0006R2 refers to its effective date, this AD requires using the effective date of this AD.

(3) Where paragraph (2.2) of EASA AD 2022-0006R2 requires within 50 FH [flight hours] after crack detection around the attachment screw, replace the affected part [fan hub] with a serviceable part, for this AD, within 50 hours TIS after crack detection

around the attachment screw, remove the affected fan hub from service, and replace it with a serviceable fan hub.

(4) Where paragraph (3) of EASA AD 2022-0006R2 requires replacing an affected part with a serviceable part before next flight if any crack is detected in any area other than around the attachment screw, for this AD, if any crack is detected in any area other than around the attachment screw, before further flight, remove the affected fan hub from service, and replace it with a serviceable fan hub.

(5) Where the service information referenced in EASA AD 2022-0006R2 specifies to “make sure that there is no crack,” this AD requires inspecting the area for a crack.

(6) Where the service information referenced in EASA AD 2022-0006R2 specifies to discard certain parts, this AD requires removing those parts from service.

(7) Where the service information referenced in EASA AD 2022-0006R2 specifies creating a Technical Event and sending certain information to Airbus Helicopters, this AD does not include those requirements.

(8) Where the service information referenced in EASA AD 2022-0006R2 specifies to use tooling, this AD allows the use of equivalent tooling.

(9) This AD does not adopt the “Remarks” section of EASA AD 2022-0006R2.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2022-0006R2 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Special Flight Permit

Special flight permits are prohibited.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (l) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(l) Additional Information

For more information about this AD, contact Kevin Kung, Aviation Safety Engineer, FAA, 1600 Stewart Ave, Suite 410, Westbury, NY 11590; telephone (781) 238-7244; email: 9-AVS-AIR-BACO-COS@faa.gov.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2022-0006R2, dated January 31, 2022.

(ii) [Reserved]

(3) For EASA AD 2022-0006R2, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; internet easa.europa.eu. You may find the EASA material on the EASA website at: ad.easa.europa.eu.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on July 27, 2023.

Ross Landes, Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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